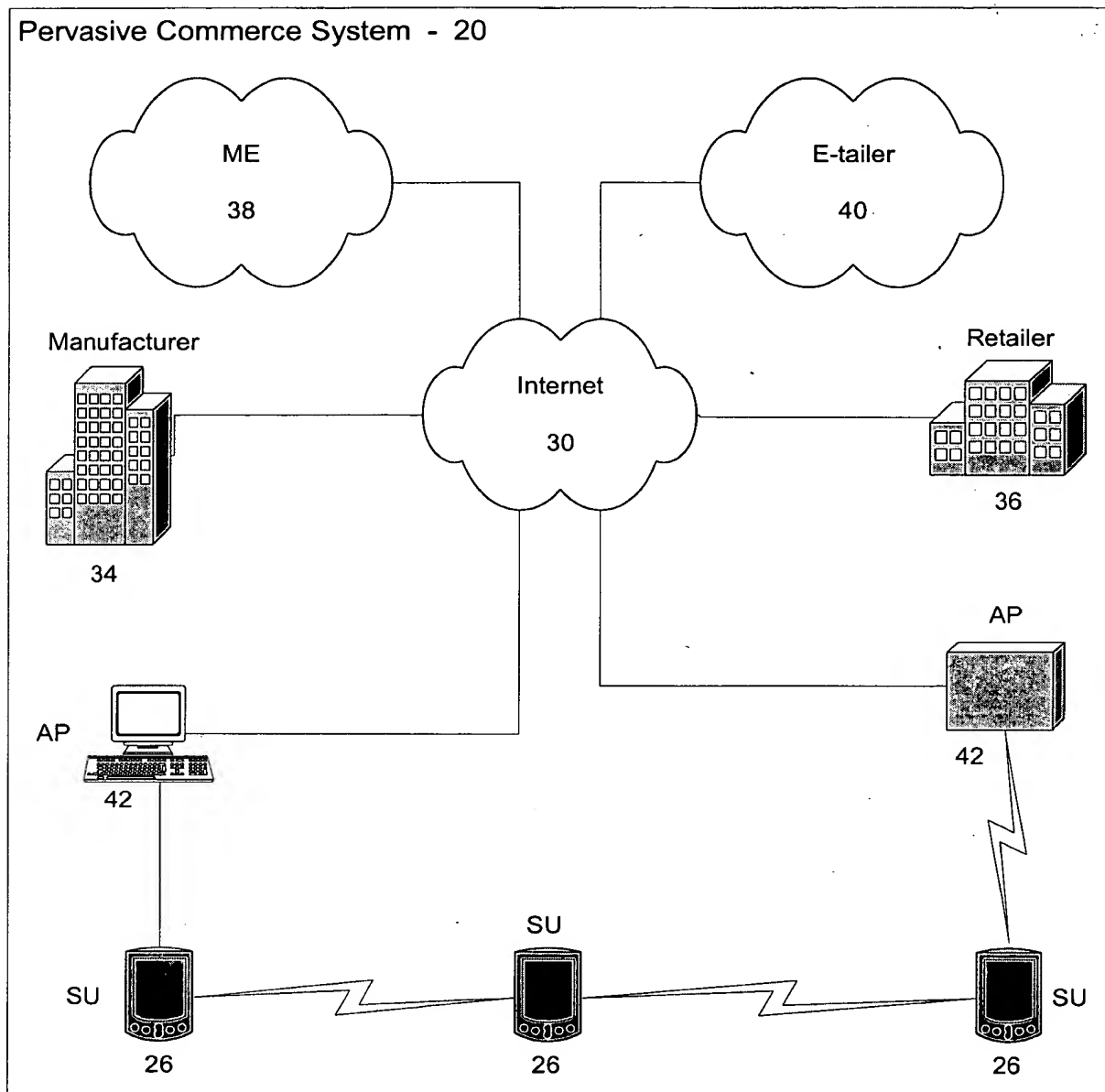


**FIGURE 1 - Pervasive Commerce System**



**FIGURE 2 - Generic Case Structure**

<b>Item Data Block ("I" Block)</b>	
<b>Case Information</b>	ID, version, etc., for the entire case.
<b>Link Information</b>	Relationship to other cases.
<b>Item Information</b>	ID, name, description, etc., for the item.
<b>ME Public Key</b>	Case key or ME key version, used for encryption and whose private key peer is used in "I" and "O" Block signatures.
<b>Distributor Public Key</b>	Assigned to or received from Distributor; private key is used in "D" Block signature.
<b>Block Signature</b>	ME signature of "I" Block

<b>Object Block ("O" Block)</b>	
<b>Object Information</b>	ID, type, description, encoding, size, etc., for the contained digital object.
<b>Object</b>	Image, music, digital asset, etc.
<b>Block Signature</b>	ME signature of "O" Block (via private key peer to ME Public Key).

<b>Distributor Data Block ("D"Block)</b>	
<b>Distributor Information</b>	ID, name, information, etc., for Distributor.
<b>Item Information</b>	Encrypted wholesale price, etc., of item.
<b>Item Options</b>	Selectable features and options of item.
<b>Mutation Rules</b>	Controlling application behavior for case mutation (e.g., expiration date).
<b>Passer Public Key</b>	Assigned to or received from Passer, whose private peer is used in "P" Block signature.
<b>Block Signature</b>	Distributor signature of "D" Block (via private key peer to Distributor Public Key).

<b>Passer Data Block ("P" Block)</b>	
<b>Passer Information</b>	ID, name, etc., of Passer.
<b>Item Information</b>	Sales price, comments, etc., about item.
<b>Receiver Public Key</b>	Assigned to or received from Receiver.
<b>Block Signature</b>	Passer signature of "P" Block (via private key peer to Passer Public Key).

<b>Receiver Data Block ("R" Block)</b>	
<b>Receiver Information</b>	ID, name, etc., of Receiver.
<b>Block Signature</b>	Receiver signature of "R" Block (optional).

**FIGURE 3 - Pervasive Commerce Case Layout**

Case

Product Data		
Product Data (product name & description, manufacturer name, address, phone, URL, MSRP, etc)		
ME Public Key Version	Case Version (Template)	Distributor Public Key
Case ID	Case SubID	Product Data Signature (ME)

Distributor Data		
Distributor Info (name, address, phone, URL, promotion, start date, stop date, etc)		
Encrypted [Distributor Price]	Product selectable features	Sales Associate Public Key
Distributor Comments	Mutations	Distributor Data Signature

Sales Associate		
Retail Price	Sales Associate Comments	Consumer Public Key
Sales Associate ID		Sales Associate Data Signature

Consumer		
Consumer ID	Consumer Comments	Consumer Password (encrypted)
Consumer Account Name	Product Feature Selections	Consumer Data Signature
Credit Card selection	Local Purchase Time/Date	Purchase Price
	Billing Address selection	

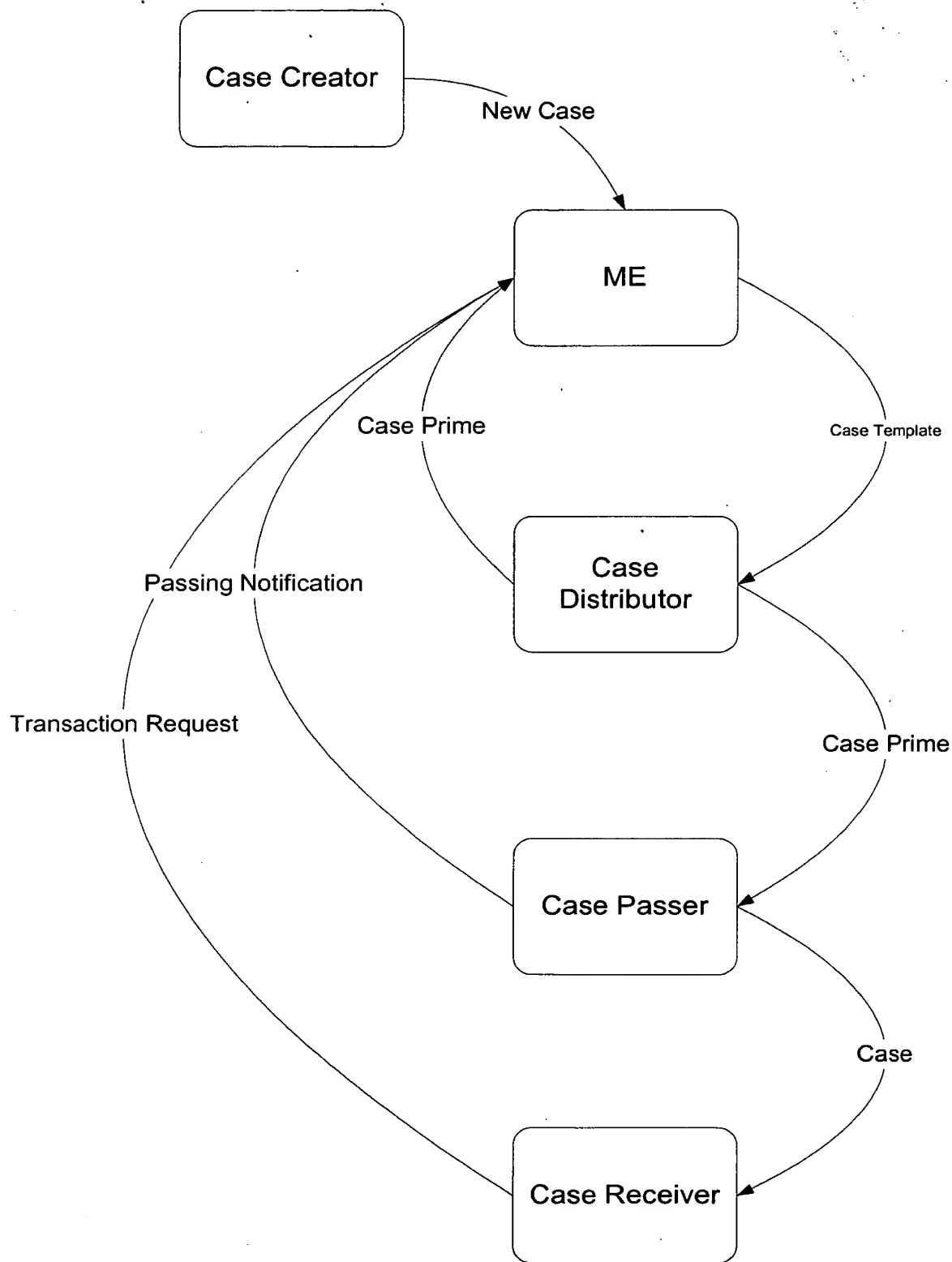
The diagram illustrates the layout of a Pervasive Commerce Case, organized into four main sections: Product Data, Distributor Data, Sales Associate, and Consumer. Each section contains specific data fields and signatures, with arrows indicating the flow of data and signatures between the sections.

- Product Data:** Includes fields for Product Data (product name & description, manufacturer name, address, phone, URL, MSRP, etc), ME Public Key Version, Case Version (Template), Distributor Public Key, Case ID, Case SubID, and Product Data Signature (ME).
- Distributor Data:** Includes fields for Distributor Info (name, address, phone, URL, promotion, start date, stop date, etc), Encrypted [Distributor Price], Product selectable features, Sales Associate Public Key, Distributor Comments, Mutations, and Distributor Data Signature.
- Sales Associate:** Includes fields for Retail Price, Sales Associate Comments, Consumer Public Key, Sales Associate ID, and Sales Associate Data Signature.
- Consumer:** Includes fields for Consumer ID, Consumer Comments, Consumer Password (encrypted), Consumer Account Name, Product Feature Selections, Consumer Data Signature, Credit Card selection, Local Purchase Time/Date, Purchase Price, and Billing Address selection.

Arrows indicate the flow of data and signatures between the sections:

- An arrow points from the **Product Data Signature (ME)** field to the **Distributor Data Signature** field.
- An arrow points from the **Distributor Data Signature** field to the **Sales Associate Data Signature** field.
- An arrow points from the **Sales Associate Data Signature** field to the **Consumer Data Signature** field.

**FIGURE 4 – Generic Case Flow**



**FIGURE 5 - New Case Template Layout**

<b>Case</b>		
<b>Item Data</b>		
Product Data (product name & description, manufacturer name, address, phone, URL, MSRP, etc)		
ME Public Key Version	Case Version (Template)	Distributor Public Key
Case ID	Case SubID	Product Data Signature (ME)
<b>Dynamic Data</b>		
Product Feature Selection Choices		

**FIGURE 6 - Case Prime Layout**

<b>Case</b>		
<b>Item Data</b>		
Product Data (product name & description, manufacturer name, address, phone, URL, MSRP, etc)		
ME Public Key Version	Case Version (Template)	Distributor Public Key
Case ID	Case SubID	Product Data Signature (ME)
<b>Digital Object(s)</b>		
	Object Data	Digital Object Signature (ME)
<b>Distributor Data</b>		
Distributor Info (name, address, phone, URL, promotion, start date, stop date, etc)		
Encrypted [Distributor Price]	Product selectable features	Sales Associate Public Key
Distributor Comments	Mutations	Distributor Data Signature
<b>Dynamic Data</b>		
Distributor Price		

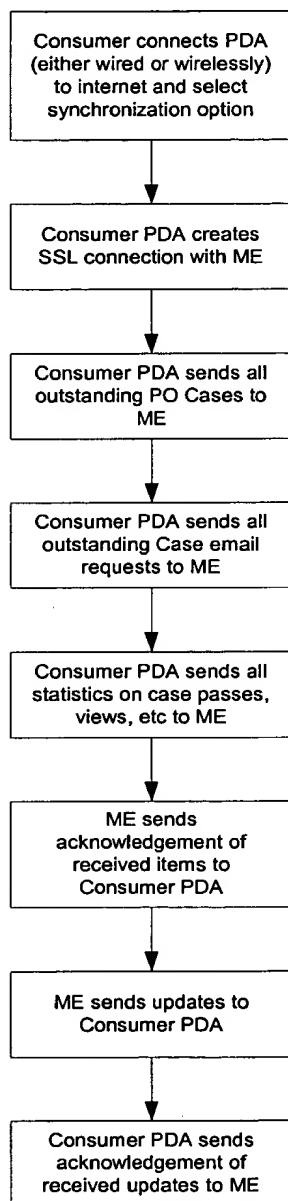
**FIGURE 7 - Passed Case Layout**

Case		
Item Data	Product Data (product name & description, manufacturer name, address, phone, URL, MSRP, etc)	
ME Public Key Version	Case Version (Template)	Distributor Public Key
Case ID	Case SubID	Product Data Signature (ME)
Digital Object(s)	Object Data	Digital Object Signature (ME)
Distributor Data	Distributor Info (name, address, phone, URL, promotion, start date, stop date, etc)	
Encrypted [Distributor Price]	Product selectable features	Sales Associate #1 Public Key
Distributor Comments	Mutations	Distributor Data Signature
Passer (Sales Associate) Data	Sales Associate Comments	Consumer Public Key
Encrypted [Sales Associate Price]	Sales Associate ID	Sales Associate Data Signature
Dynamic Data	Sales Associate Price	

**FIGURE 8 - Complete Case Layout**

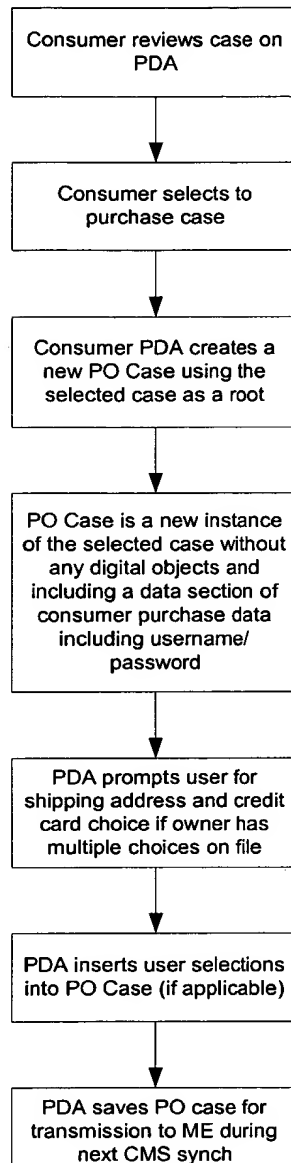
Case		
Item Data		
Product Data (product name & description, manufacturer name, address, phone, URL, MSRP, etc)		
ME Public Key Version	Case Version (Template)	Distributor Public Key
Case ID	Case SubID	Product Data Signature (ME)
Digital Object(s)		
Object Data		Digital Object Signature (ME)
Distributor Data		
Distributor Info (name, address, phone, URL, promotion, start date, stop date, etc)		
Encrypted [Distributor Price]	Product selectable features	Sales Associate #1 Public Key
Distributor Comments	Mutations	Distributor Data Signature
Passer (Sales Associate) Data		
Retail Price	Sales Associate Comments	Consumer Public Key
	Sales Associate ID	Sales Associate Data Signature
Receiver (Consumer) Data		
Consumer Comments		
Consumer ID	Consumer Data Signature	

**FIGURE 9 - Consumer Synchronization of PDA with ME**





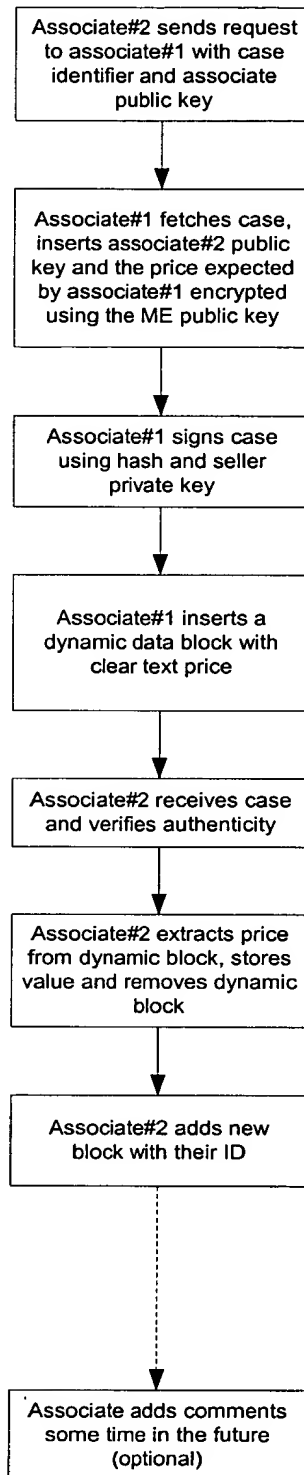
**FIGURE 10 - Consumer Makes Case-Based Purchase**



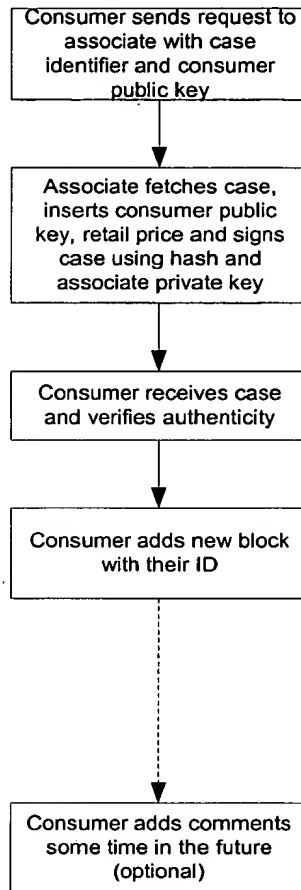
**FIGURE 11 - Purchase Request Case Layout**

Case		
<b>Product Data</b>		
Product Data (product name & description, manufacturer name, address, phone, URL, MSRP, etc)		
ME Public Key Version	Case Version (Template)	Distributor Public Key
Case ID	Case SubID	Product Data Signature (ME)
<b>Distributor Data</b>		
Distributor Info (name, address, phone, URL, promotion, start date, stop date, etc)		
Encrypted [Distributor Price]	Product selectable features	Sales Associate Public Key
Distributor Comments	Mutations	Distributor Data Signature
<b>Sales Associate</b>		
Sales Associate Comments	Consumer Public Key	
Retail Price	Sales Associate ID	Sales Associate Data Signature
<b>Consumer</b>		
Consumer Comments	Consumer Password (encrypted)	
Consumer ID	Product Feature Selections	Consumer Data Signature
Consumer Account Name	Local Purchase Time/Date	Purchase Price
Credit Card selection	Billing Address selection	

**FIGURE 12 - Sales Associate Passes Case to Sales Associate**



**FIGURE 13 - Sales Associate Passes Case to Consumer**



**FIGURE 14 - Consumer Passes Case to Consumer**

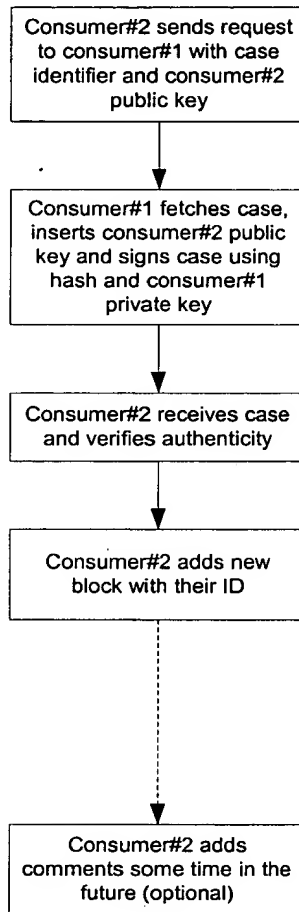


FIGURE 15 - Pervasive Commerce Case Layout

Case

Product Data		
Product Data (product name & description, manufacturer name, address, phone, URL, MSRP, etc)		
ME Public Key Version	Case Version (Template)	Distributor Public Key
Case ID	Case SubID	Product Data Signature (ME)

Digital Object(s)		
	Object Encoding	Object Size
Object Description	Object (image, music, digital asset...)	Digital Object Signature (ME)

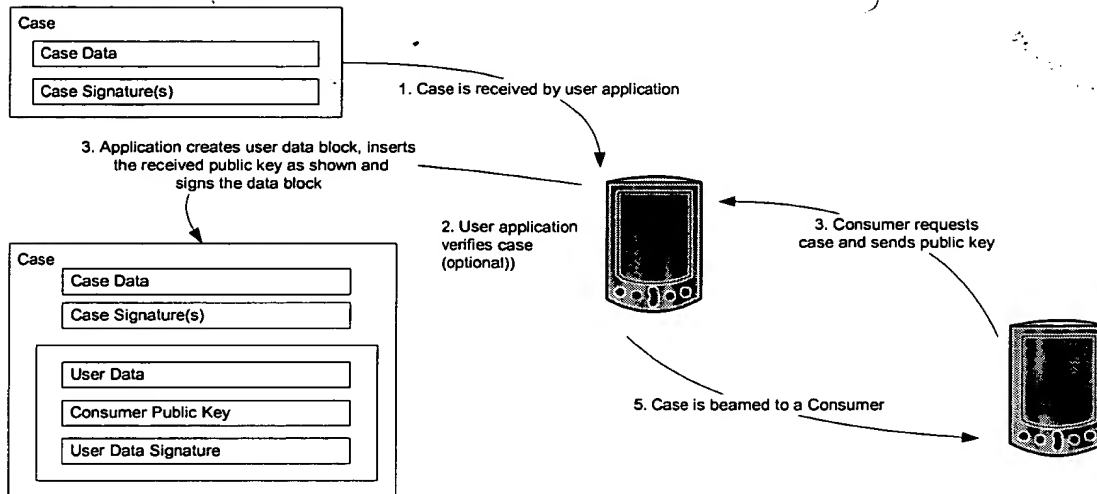
Distributor Data		
Distributor Info (name, address, phone, URL, promotion, start date, stop date, etc)		
Encrypted [Distributor Price]	Product selectable features	Sales Associate #1 Public Key
Distributor Comments	Mutations	Distributor Data Signature

Sales Associate #1 Data		
	Sales Associate Comments	Sales Associate #2 Public Key
Encrypted [Sales Associate #1 Price]	Sales Associate #1 ID	Sales Associate #1 Data Signature

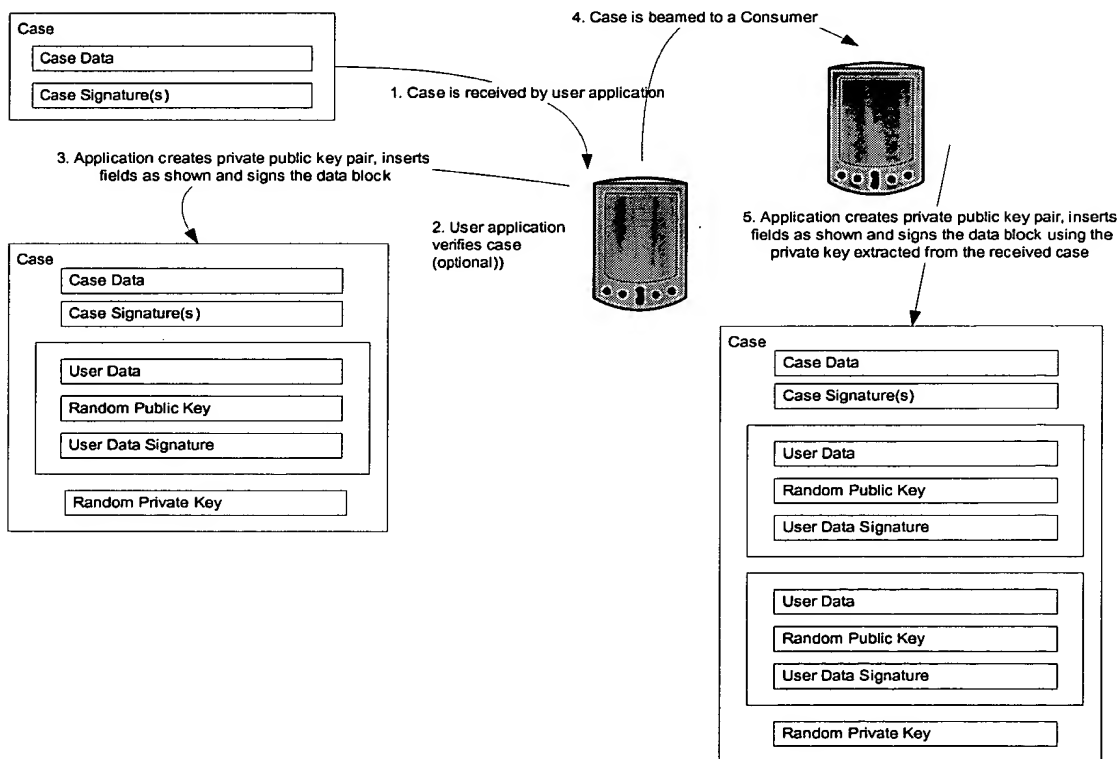
Sales Associate #2 Data		
	Sales Associate Comments	Customer #1 Public Key
Sales Associate #2 ID	Retail Price	Sales Associate #2 DataSignature

Customer #1 Data		
	Customer Comments	
Customer #1 ID	Customer #1 Data Signature	Customer #2 Public Key

Customer #2 Data		
	Customer Comments	
Customer #2 ID	Customer #3 Public Key	Customer #2 Data Signature



**FIGURE 16 – Receiver Selected Key Exchange**



**FIGURE 17 – Passer Generated Key Exchange**

Digital Object
Object Description (text name and description of the contained digital object)
Object Type (image, video, music clip, music song, music album)
Object Encoding (jpeg, tiff, mpeg, mp3, midi, XrML, zip, pdf)
Object Size (total size of object in bytes)
Object (actual object data)
Digital Object Signature (ME)

FIGURE 18 – DIGITAL OBJECT

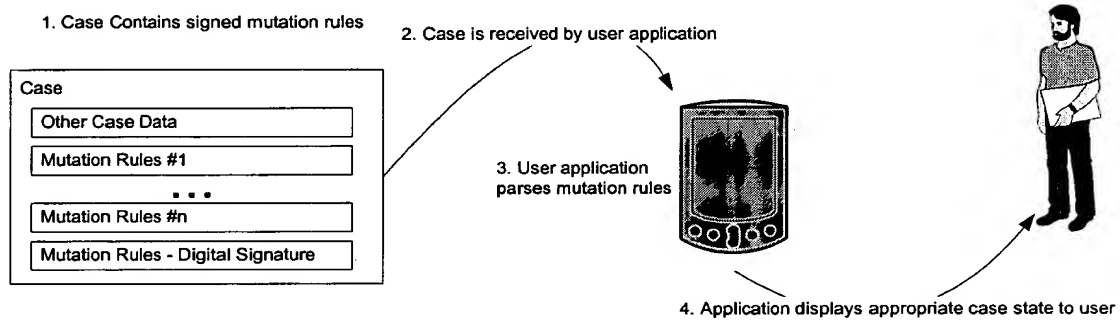
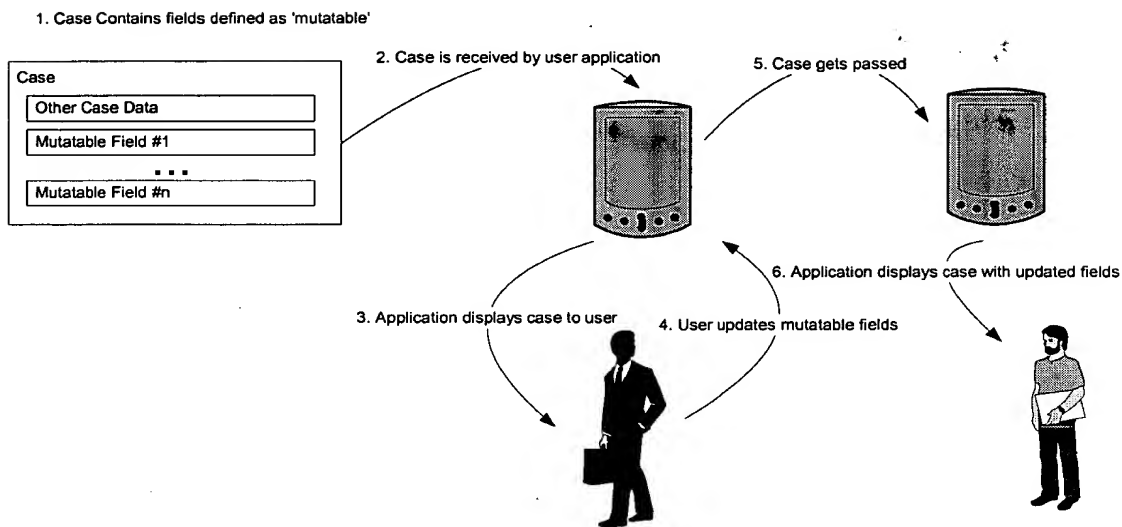


FIGURE 19 – Trusted Case Mutation





**FIGURE 20 – Untrusted Case Mutation**